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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,990	05/24/2001	Bruce A. Seiber	H0001129	2636

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EXAMINER

NGUYEN, TUAN M

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 09/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,990

Applicant(s)

SEIBER, BRUCE A.

Examiner

Tuan M Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings (figs. 1-4) are objected for minor informalities. The figures 1-4 are not labeled as required by 37 CFR 1.83(a). Applicant is required to submit a drawing correction for approval as require by rule 37 CFR 1.123.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 8 and 15, recite a **gas discharge tube** comprising a block wherein at least a portion of the block is maintained at a reference potential; a cathode engaging the block and biased at a higher potential than the reference potential and an node engaging the block and biased at a higher potential than the cathode. The invention is a ring laser gyroscope 40 having a block 42. See page 7 line 14-15. There is no **gas discharge tube** structure recited in the claims.

Claims 2, 4, 6, 9, 11, 13, 17, 19, 21, and 23, recite the reference potential is **substantially** ground. It is unclear “**substantially**” means, which render the claims confusing, vague and indefinite.

Claims 3, 7, 10 and 14, recite wherein the biasing electrode overlies the passage and **extends substantially** between the cathode and anode. It is unclear what is **extends substantially** means, which render the claim confusing, vague and indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 8-9, 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hendow et al (US patent 4,825,260).

With respect to claims 1 and 8, as claim are understood, Hendow discloses apparatus and method using amplification cells for ring laser gyroscope cavity length control comprising a ring laser gyroscope (10), a frame (12) is consider as a block, a cathode (28), the anodes (24, 26), a lasing medium (23) is consider as a passage note col. 3 line 30 to col. 6 line 64, see figs 1-3.

With respect to claims 2, 9, 11, Hendow discloses the actuator (86) and the cathodes (62, 70) are connected to ground, col. 4 line 6 to col. 6 line 45, see fig 2.

With respect to claim 12, Hendow discloses the biasing electrode is based negatively with respect to the reference potential; see fig 1 elements (28 and 30).

With respect to claim 13, Hendow discloses the reference potential is substantial ground, see fig 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 3-7, 10, 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hendow et al (US patent 4,825,260) in view of Ford et al (US patent 6,025,914).

With respect to claims 3, 10 and 15, Hendow discloses all as set for the in claim 1 except for the biasing electrode has a bias to attract positive alkali ions. Whereas Ford et al discloses the biasing electrode has a bias to attract positive alkali ions, note col. 2 line 37 to col. 5 line 45. For the benefit of cathode seal including migration resistant dielectric material, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Hendow with the biasing electrode has a bias to attract positive alkali ions as taught or suggested by Ford.

With respect to claims 4 and 6, Hendow discloses the reference potential is substantially ground, see fig 1.

With respect to claim 5, Ford discloses the biasing electrode is biased above the reference potential, note col. 2 line 37-67.

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With respect to claims 7 and 14, Ford discloses a block (1), a first anode (13), a second anode (14), a cathode (12) and a passage (2). Ford also disclose the biasing electrode overlies the passage and extends substantially between the cathode and the first and second anodes, note col.2, see fig 1.

With respect to claims 16 and 20, Hendow discloses the actuator (86) is tied to ground and the cathodes (62, 70) are tied to the transistor, which is acted as a switch, when the switch is closed both transistors are connect to ground and anodes (60, 68) are connect to positive of power source.

With respect to claims 17 and 21, Hendow discloses the actuator (86) and the cathodes (62, 70) are connected to ground, col. 4 line 6 to col. 6 line 45, see fig 2.

With respect to claim 18, Ford discloses the biasing electrode is biased positively with respect to the reference potential, note col. 2 lines 37-65.

With respect to claim 19, Hendow disclose the reference potential is substantially ground, see fig 1.

With respect to claim 22, Hendow discloses the biasing electrode is based negatively with respect to the reference potential; see fig 1 elements (28 and 30).

With respect to claim 23, Hendow discloses the reference potential is substantial ground, see fig 1.

Citation Of The Pertinent References

6. The prior art made of record and not relied upon us considered pertinent to applicant's disclose.

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The patent to Mallon (US patent 5,628,869) disclose plasma enhanced chemical vapor reactor with shaped electrodes.

Communication Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan M Nguyen whose telephone number is (703) 306-0247.

The examiner can normally be reached on 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-5511 for regular communications and (703) 306-5511 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.



Paul Ip
SPE
Art unit 2828

TMN
September 18, 2002